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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/523,182

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EXAMINER

DINH, TRINH VO

ART UNIT

PAPER NUMBER

2821

MAIL DATE

DELIVERY MODE

07/15/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/523,182	Applicant(s) PINTOS ET AL.	
	Examiner Trinh Vo Dinh	Art Unit 2821	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 2 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 16 April 2008.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☒ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,3-9 is/are pending in the application.
- 4a) Of the above claim(s) 5-9 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☒ Claim(s) 1,3 and 4 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

This is a response to the amendment filed 04/16/2008. In view of the amendment, claims 1, 5 and 7 are amended and claim 2 is canceled. The amended claims 1 and 3-4 would be allowable as defined in the office action. However, amended claims 5 and 7 necessitate a restriction as presented below.

Restrictions

1. Restriction to one of the following species is required under 35 U.S.C. 121:
 - I. Amended claims 1 and 3-4, drawn to an apparatus of monopole antenna, among other things, comprises external profile of the cup shaped radiating element given by the equation $x(t) = 8 + 1.9*t * \cos(t - 7)$, $z(t) = 2.5 + 12.5 \sin(t)/t$ wherein $1.3 < t < 4.075$, classified in class 343, subclass 772.
 - II. Amended claims 5, 6 and 9, drawn to a process for manufacturing an monopole antenna, among with other things, comprises step of injecting moulding of a plastic followed by a step of metallizing the external surface of the radiating element using vacuum spraying of the metal or an electrochemical process, classified in class 29, subclass 600.
 - III. Amended claims 7-8 drawn to a method for manufacturing a monopole antenna, among with other things, comprises step of machining a single block of metallizable foam followed by a step of metallizing the hollow surface of the cup-shaped radiating element using atomization of an electrically conducting paint.

The species are independent or distinct because claims to the different species recite the mutually exclusive characteristic of such species. In addition, these species are not

obvious variants of each other bases on the current record.

There is an examination and search burden of these patentably distinct species due to their mutually exclusive characteristics. The species require a different field of search (e.g., searching different classes/subclasses or electronic resources, or employing different search queries); and /or the prior art applicable to one species would not likely be applicable to another species; and/or the species are likely to raise different non-prior art issues under 35 U.S.C. 101 and/or 35 U.S.C. 112, first paragraph.

The amended claims 1 and 3-4 are directed to species that are distinct from the species originally claimed for the reasons as presented above. Since Applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by originally presentation for prosecution on the merits. Accordingly, claims 5-9 are withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP 821.03.

DETAILED ACTION

This application is in condition for allowance except for the following formal matters:

Election

2. Amended claims 5-9 are withdrawn from consideration as being non-elected claims as presented above. The Applicant is suggested to cancel the claims or rewrite claims 5 and 7 to include all of the limitations of allowed claim 1.

Claim Objections

3. Claim 1 is objected to because of the followings.

In claim 1, what are variances "t", $x(t)$, and $z(t)$ present for? There is no definition for the variances either in the specification or the claims. The variances must be defined in specification and claims. Corrections are required.

Reasons for Allowance

4. Claims 1 and 3-4 would be allowable if rewritten or amended to overcome the objection, set forth in this Office action.
5. Claims 1 and 3-4 would be allowable because the prior art does not teach or suggest a monopole antenna comprising a cup-shaped radiating element with external profile of the cup-shaped radiating element being given by the claimed equation.

Conclusion

6. Prosecution on the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

A shortened statutory period for reply to this action is set to expire **TWO MONTHS** from the mailing date of this letter

Inquiry

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Trinh Vo Dinh whose telephone number is (571) 272-1821. The examiner can normally be reached on Monday to Friday from 9:30AM to 6:00PM. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

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applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Art unit 2821

July 12, 2008

/Trinh Vo Dinh/

Primary Examiner, Art Unit 2821